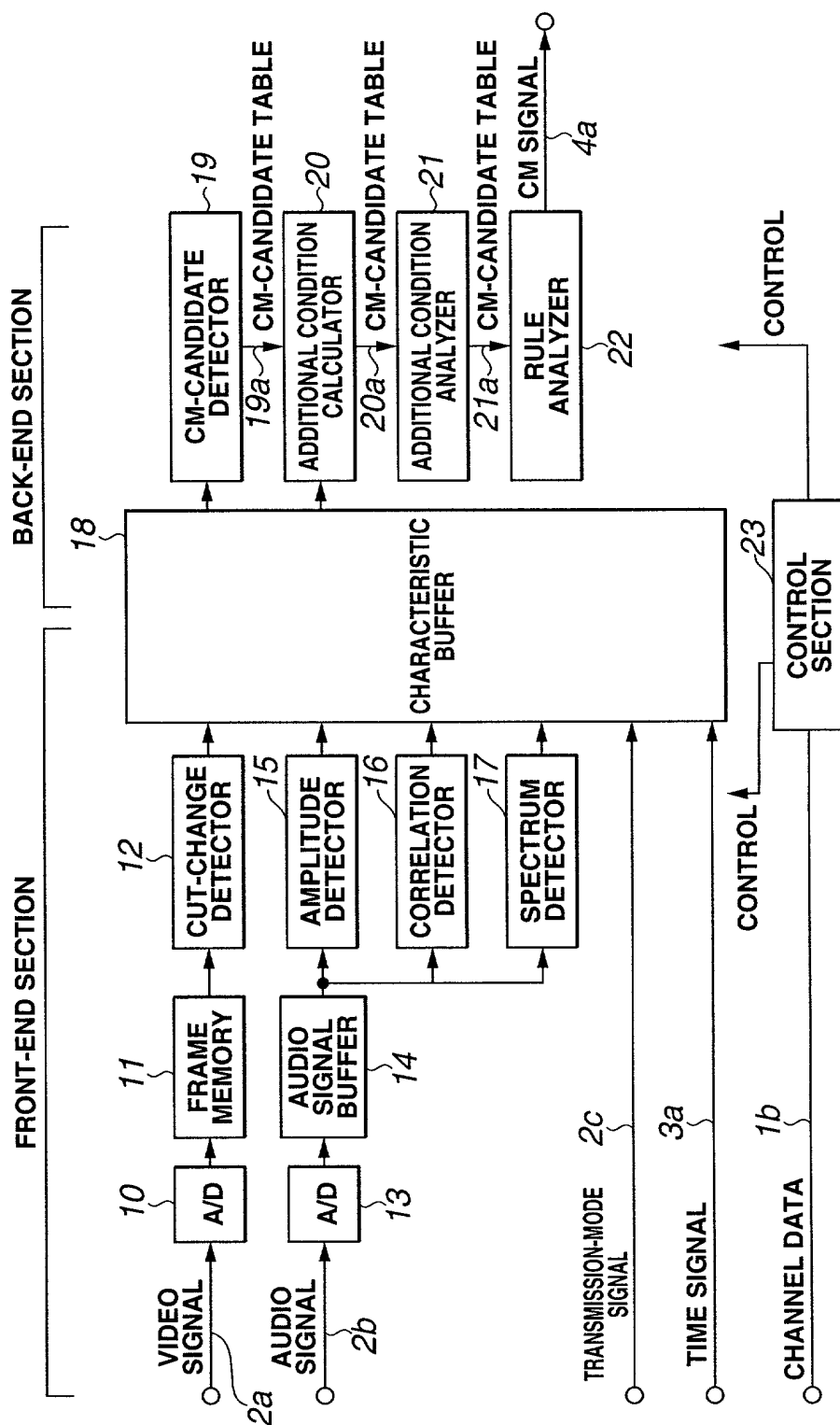


FIG.1



CM-DETECTING SECTION 4

FIG.2

START FRONT-END  
PROCESS

S30

INPUT A FRAME-DATA ITEM

S31

DETECT A CUT-CHANGE

S32

STORE SIGNAL  $C[n]$  IN  
CHARACTERISTIC BUFFER

FIG.3

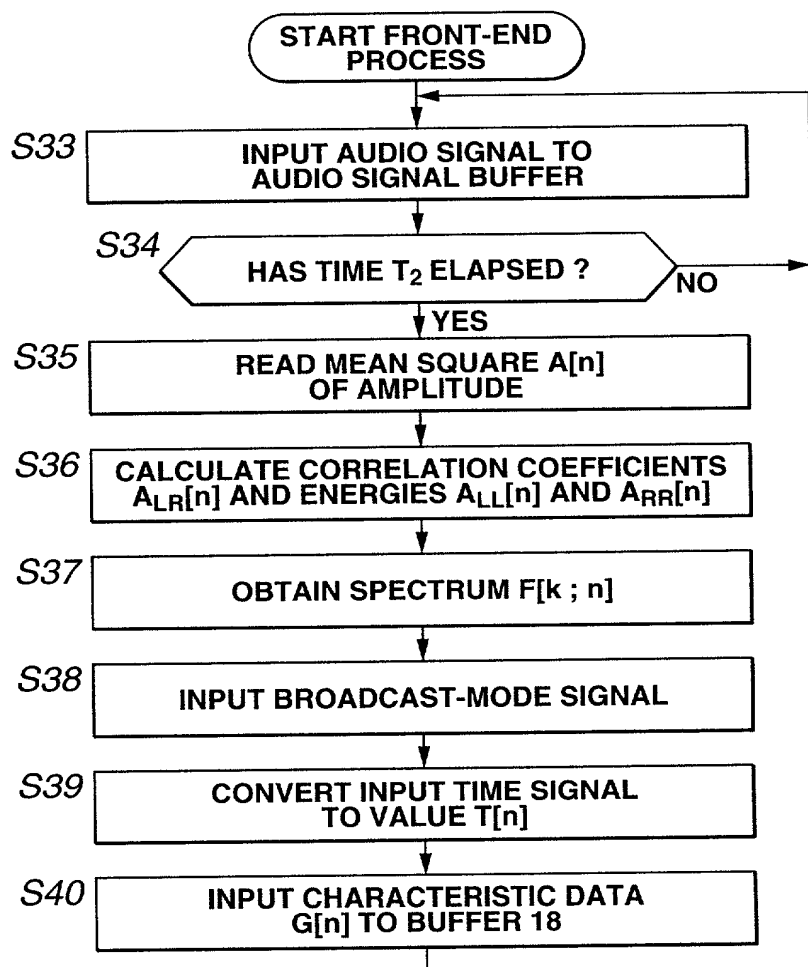


FIG.4

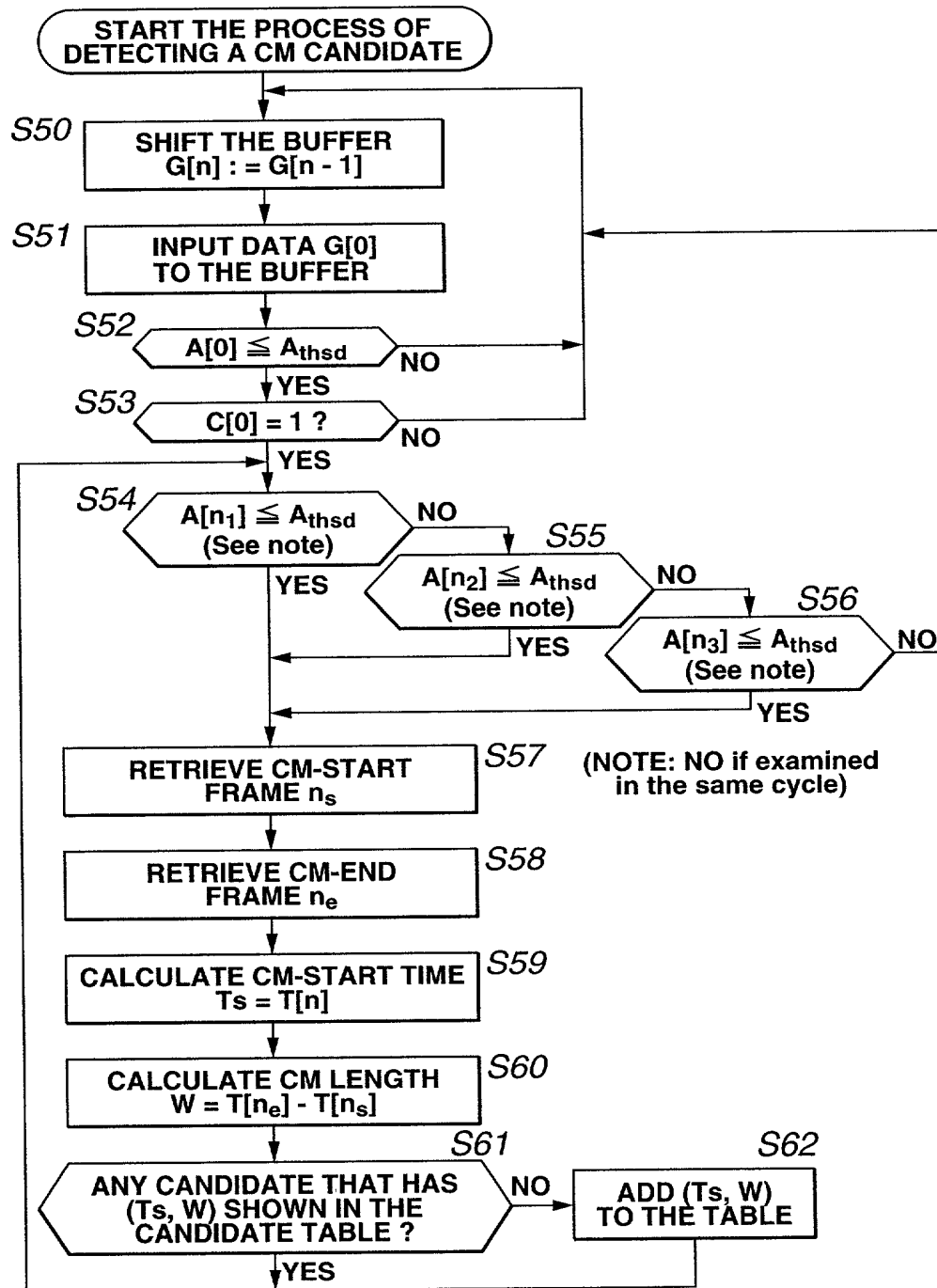
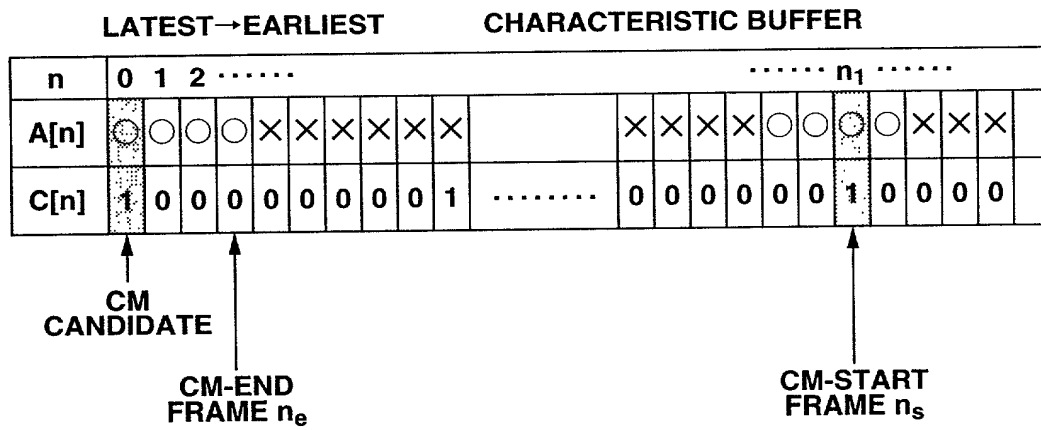


FIG.5



**FIG.6**

ITEM	SYMBOL	UNIT	EXAMPLE OF NECESSARY CONDITION (19a)	EXAMPLE OF NECESSARY CONDITION (20a)	EXAMPLE OF CONDITION DETERMINED (21a)
START TIME	Ts	hr, min., sec.	1:23'45	1:23'45	1:23'45
LENGTH (SOUND)	Tw	sec.	14.63	14.63	14.63
PRE-BREAK LENGTH	Q1	ms	-	300.0	300.0
POST-BREAK LENGTH	Q2	ms	-	300.0	300.0
MINIMUM WIDTH OF PRE-BREAK	Q3	(See note)	-	0.00015	0.00015
MINIMUM WIDTH OF POST-BREAK	Q4	(See note)	-	0.00020	0.00020
LEFT-RIGHT CORRELATION	Q5	-	-	0.934	0.934
MEAN AMPLITUDE	Q6	(See note)	-	0.010	0.010
NUMBER OF CUTS	Q7	piece	-	9	9
BROADCAST MODE	Q8	-	-	1	1
NUMBER OF ADJACENT CANDIDATES	Q9	piece	-	2	2
ENERGY OF PRE-SPECTRUM DIFFERENCE	Q10	-	-	0.41	0.41
ENERGY OF POST-SPECTRUM DIFFERENCE	Q11	-	-	0.63	0.63
SCORE	R	-	-	-	1.80
SCORE	Z	-	-	-	1

\*note: amount of the amplitude of the audio signal is represented as  
the proportion to the maximum amplitude

**FIG.7**

FIG. 8A

CUT-CHANGE  $C[n]$

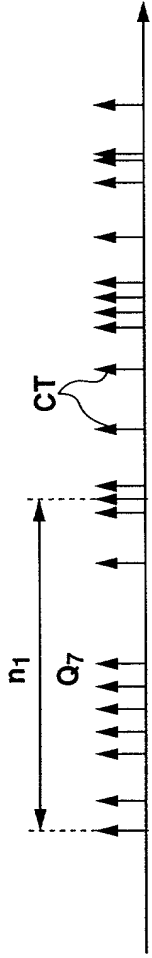


FIG. 8B

BROADCAST-MODE  $B[n]$

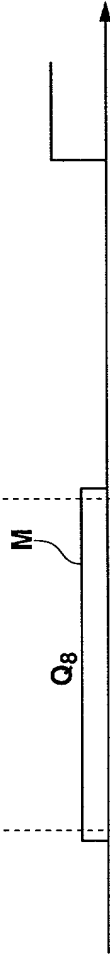


FIG. 8C

SPECTRUM OF  
AUDIO SIGNAL  $S[k; n]$

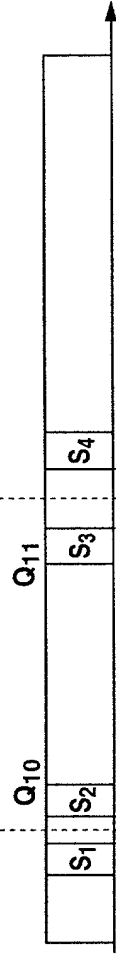
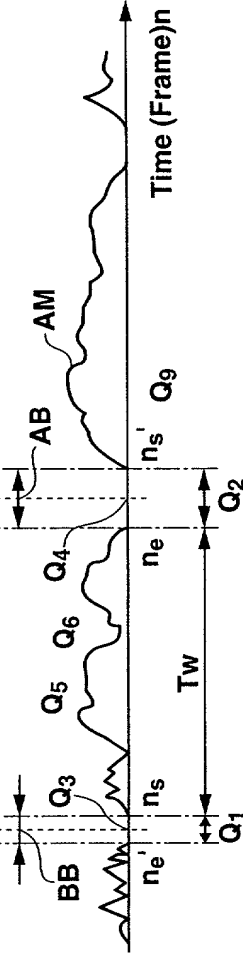


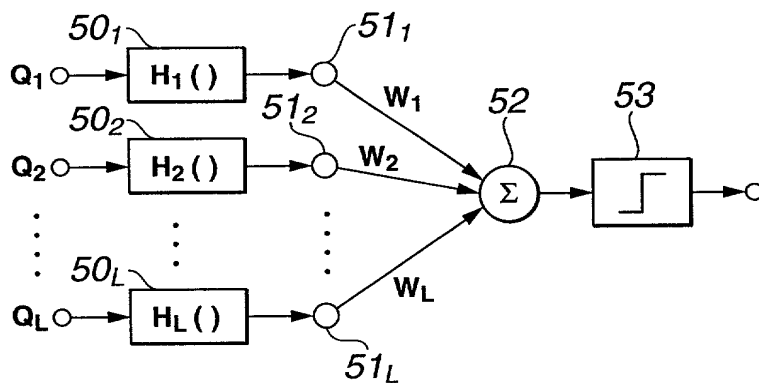
FIG. 8D

MEAN SQUARE  $A[n]$  OF  
AMPLITUDE OF AUDIO SIGNAL



\* USE  $A_{LL}[n]$ ,  $A_{RR}[n]$  AND  $A_{LR}[n]$  TO CALCULATE  $Q_5$





ADDITIONAL CONDITION ANALYZER 21

FIG.9

FIG.10A

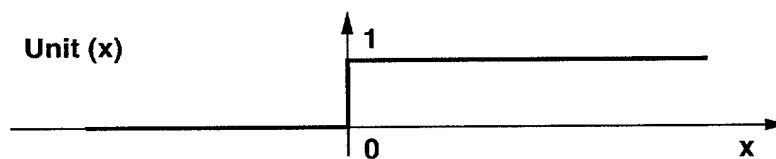


FIG.10B

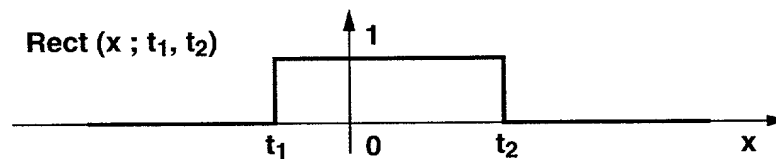
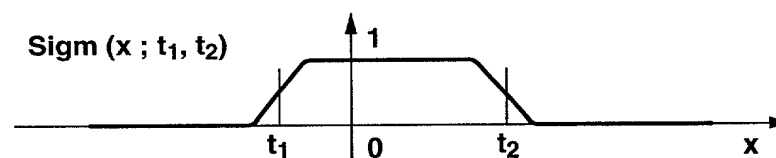


FIG.10C



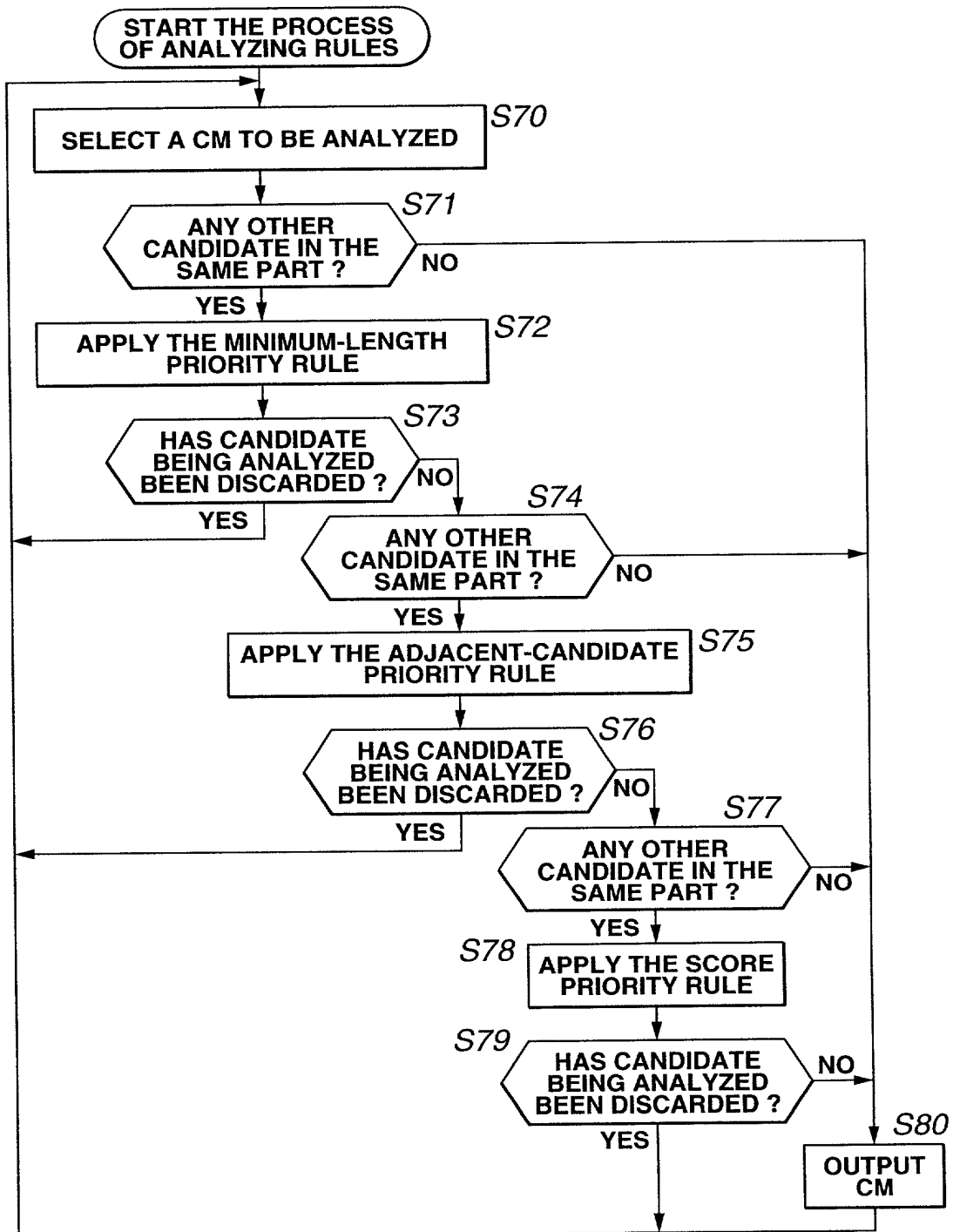
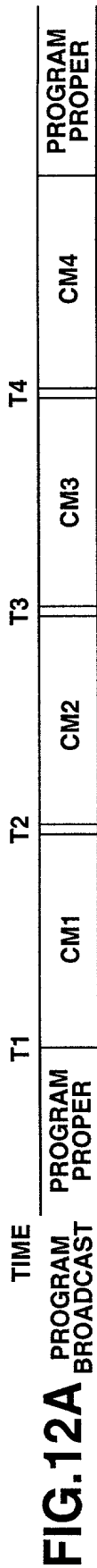
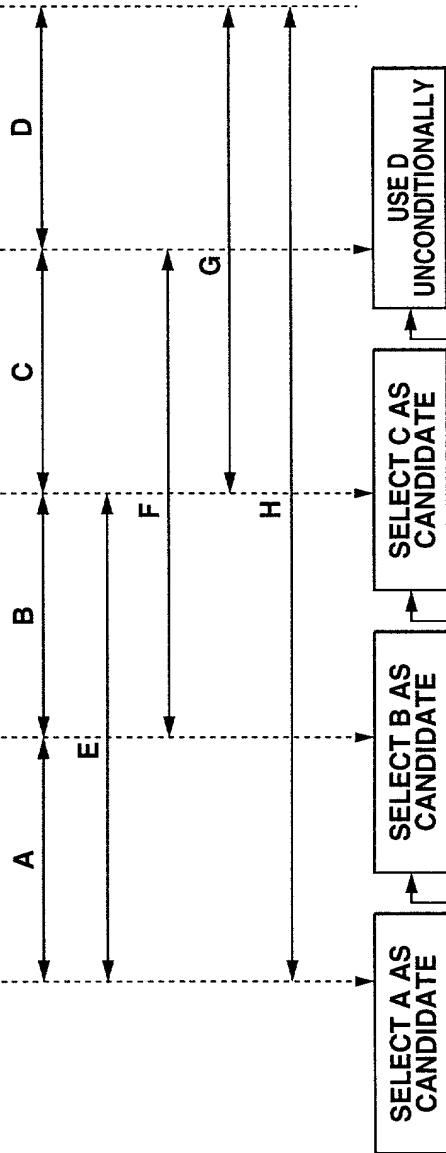


FIG.11



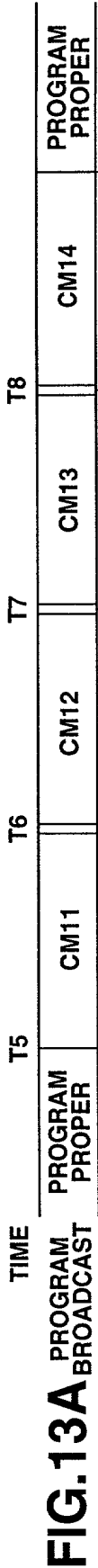
**FIG. 12B** LATEST CM CANDIDATE



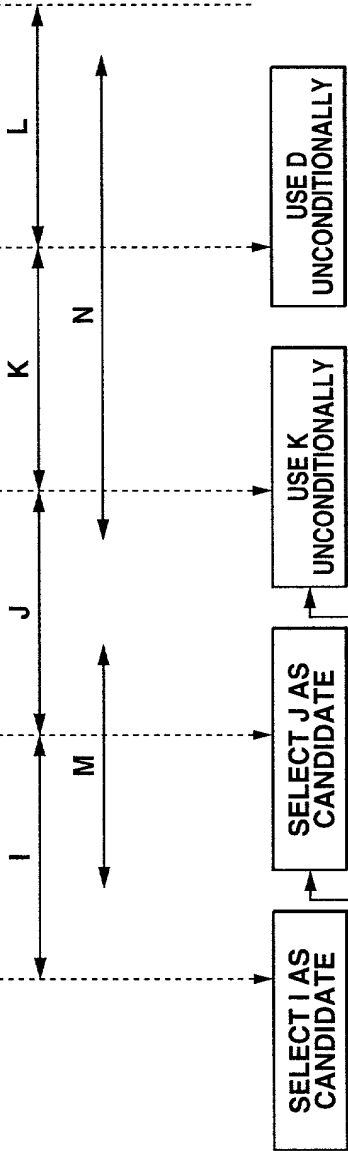
**FIG. 12F**

**FIG. 12C** FIG. 12D FIG. 12E

MINIMUM-LENGTH PRIORITY RULE



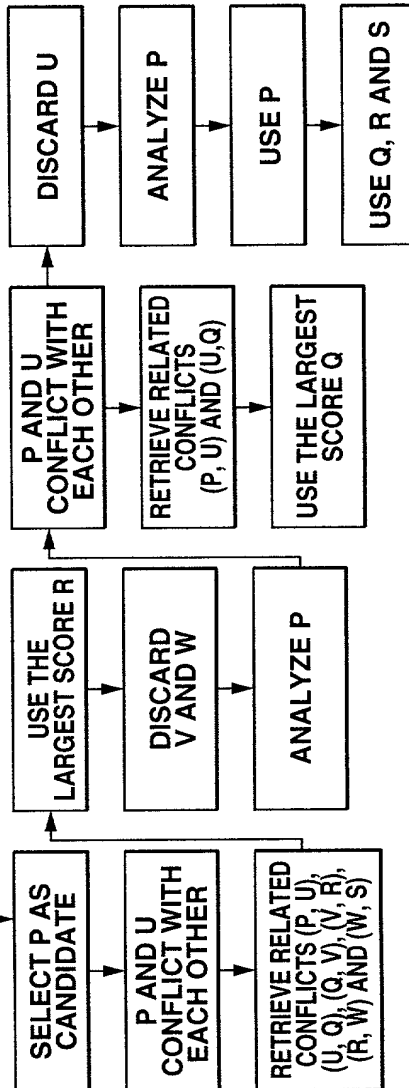
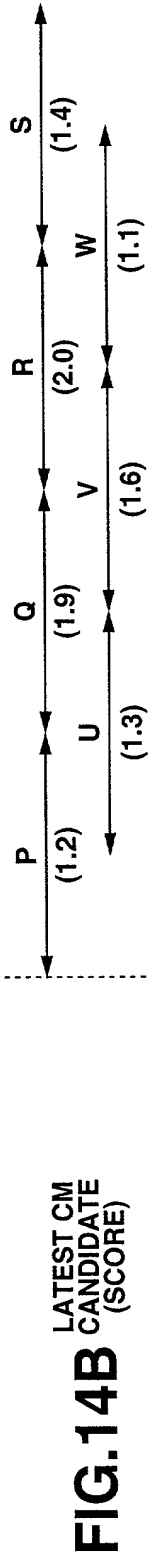
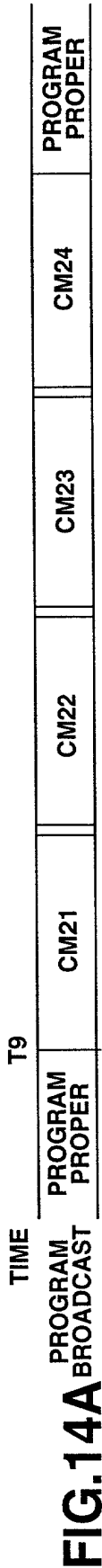
**FIG. 13B** LATEST CM CANDIDATE



**FIG. 13E** FIG. 13F

**FIG. 13C** FIG. 13D

ADJACENT-CANDIDATE PRIORITY RULE



**FIG. 14D** **FIG. 14E** **FIG. 14F**

SCORE PRIORITY RULE

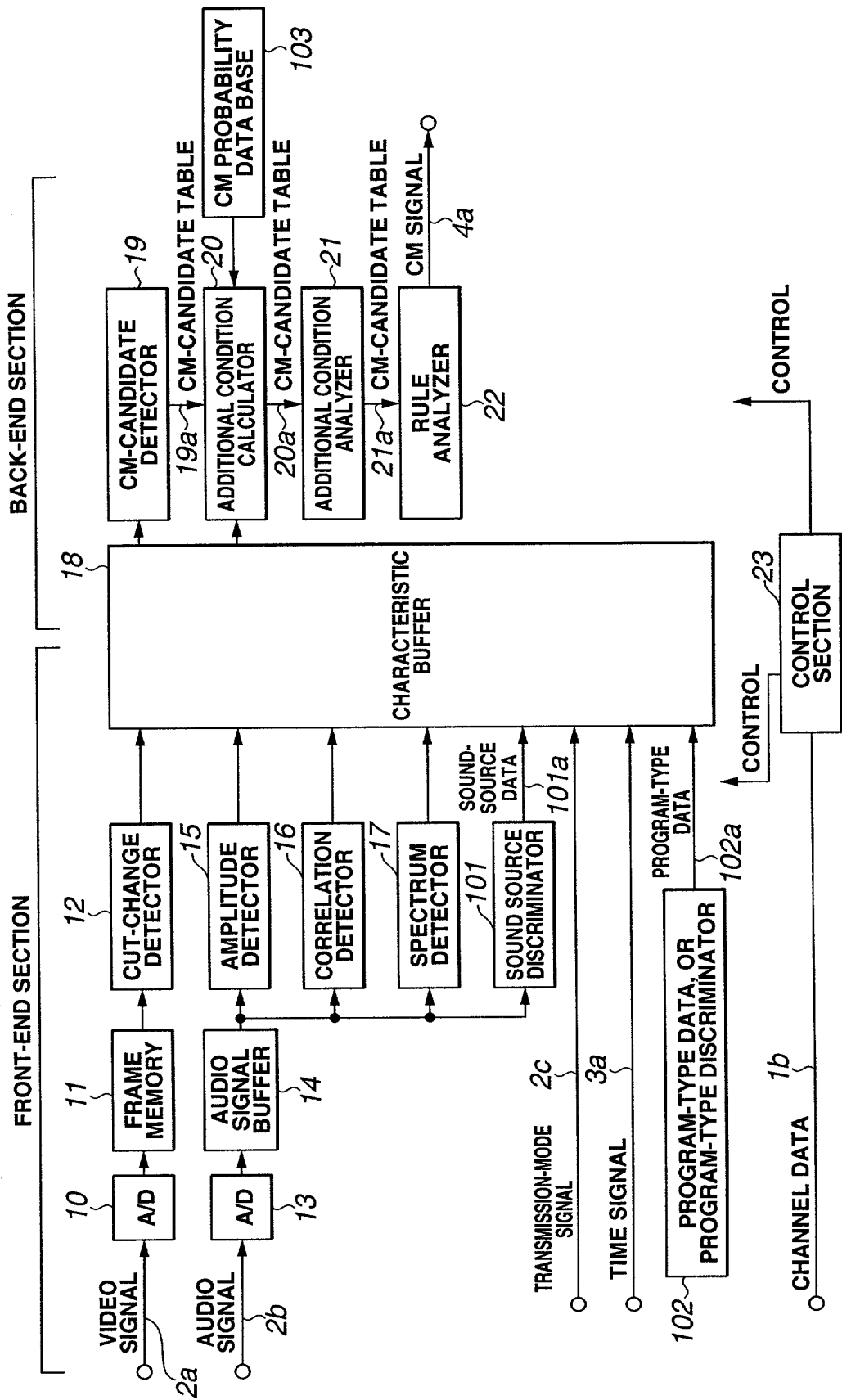


FIG.15

ITEM	SYMBOL	UNIT	EXAMPLE OF NECESSARY CONDITION (19a)	EXAMPLE OF ADDITIONAL CONDITION (20a)	EXAMPLE OF CONDITION DETERMINED (21a)
SOUND CONTAINED ? MUSIC CONTAINED ? PROBABILITY FOR TIME ZONE PROBABILITY FOR PROGRAM TYPE	Q <sub>12</sub>	-	-	1	1
	Q <sub>13</sub>	-	-	1	1
	Q <sub>14</sub>	-	-	0.15	0.15
	Q <sub>15</sub>	-	-	0.1	0.1

FIG.16

ITEM	SYMBOL	UNIT	EXAMPLE OF VALUE
NUMBER OF SMALL AMPLITUDES SMALL-AMPLITUDE PERIOD SIGNAL DISPERSION	Q <sub>16</sub>	-	1
	Q <sub>17</sub>	s	0.24
	Q <sub>18</sub>	-	0.40

FIG.17

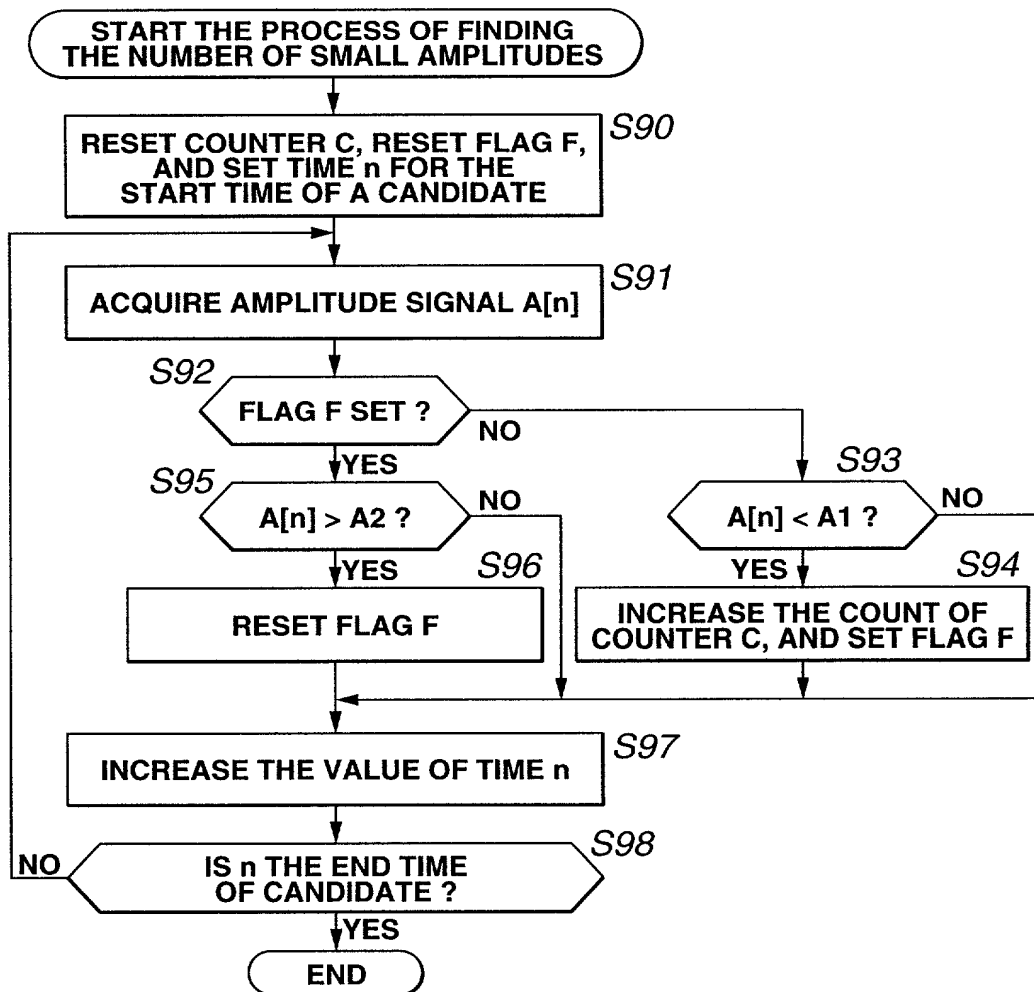


FIG.18



FIG. 19A

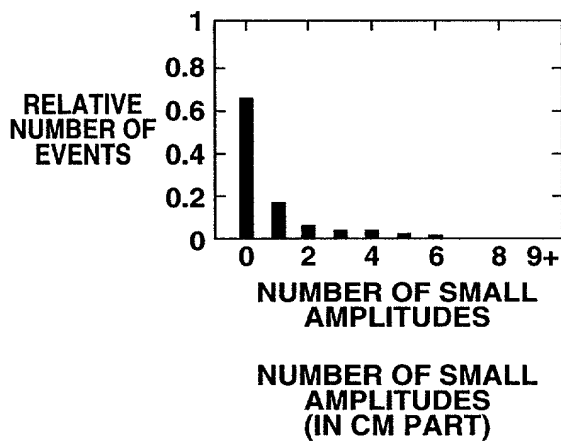


FIG.19A

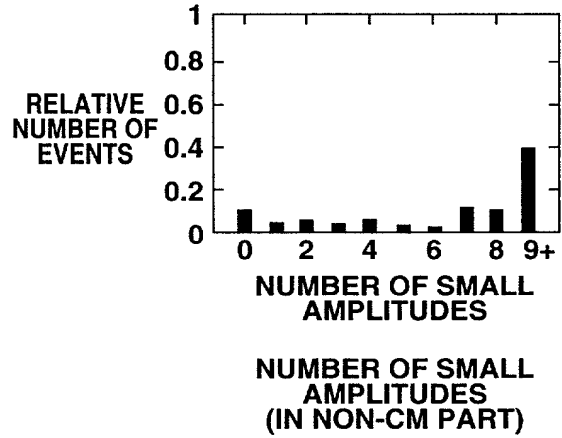


FIG.19B

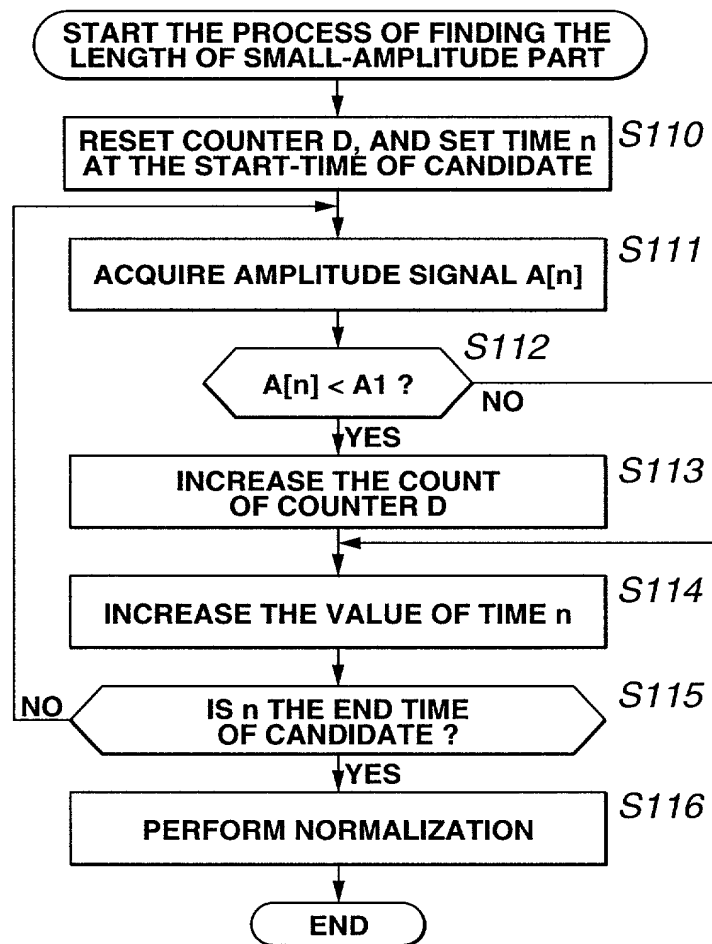


FIG.20

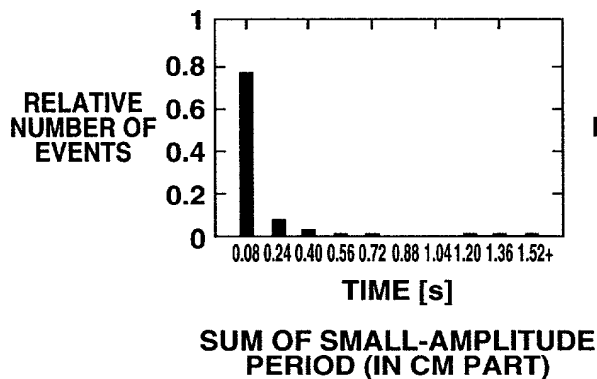


FIG.21A

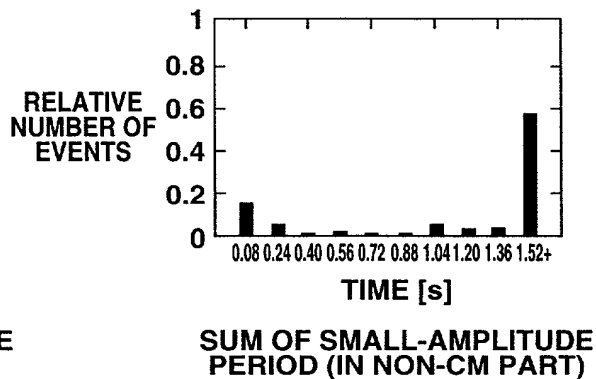


FIG.21B

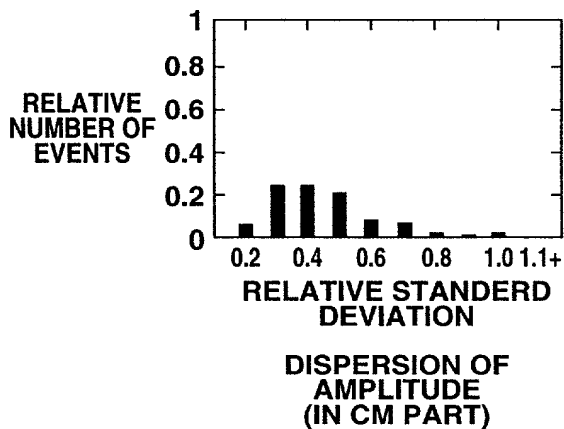


FIG.22A

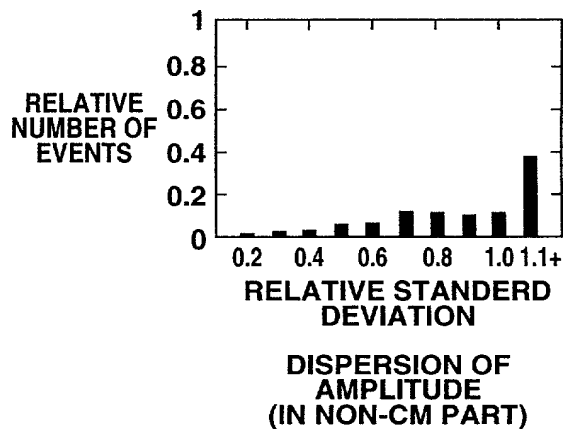


FIG.22B

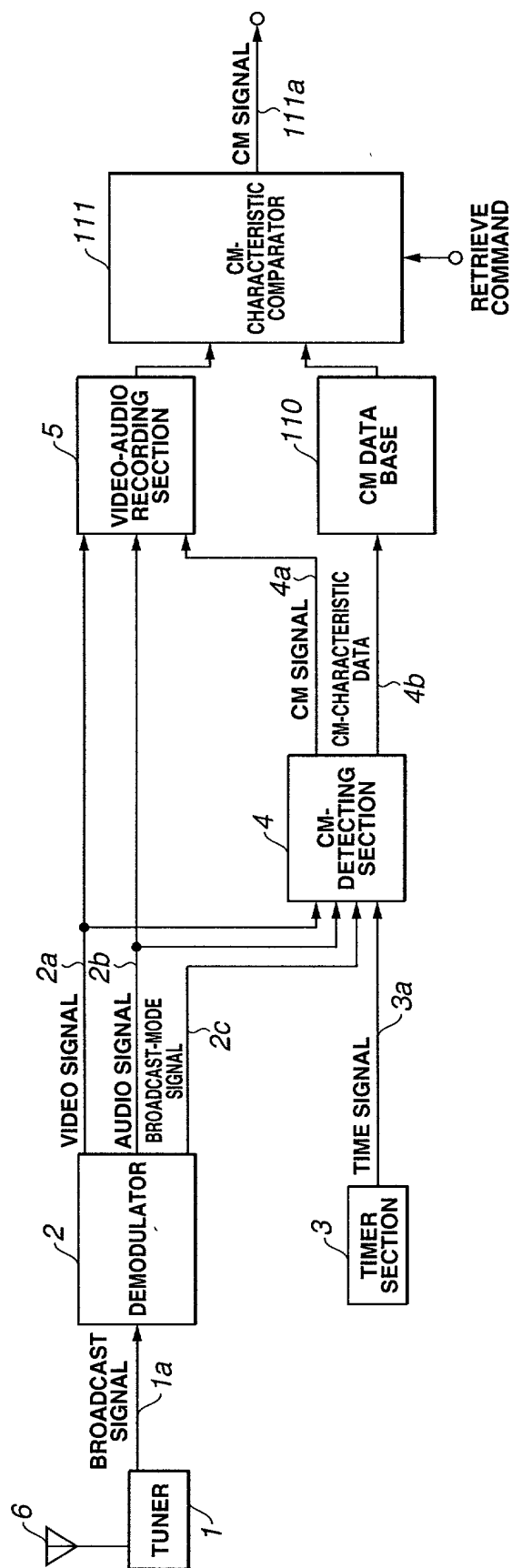
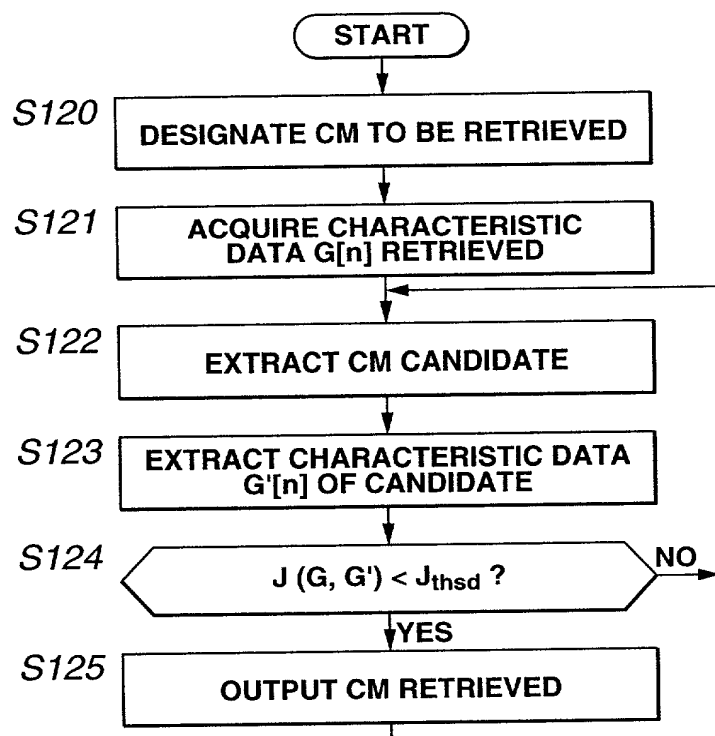


FIG. 23



**FIG.24**

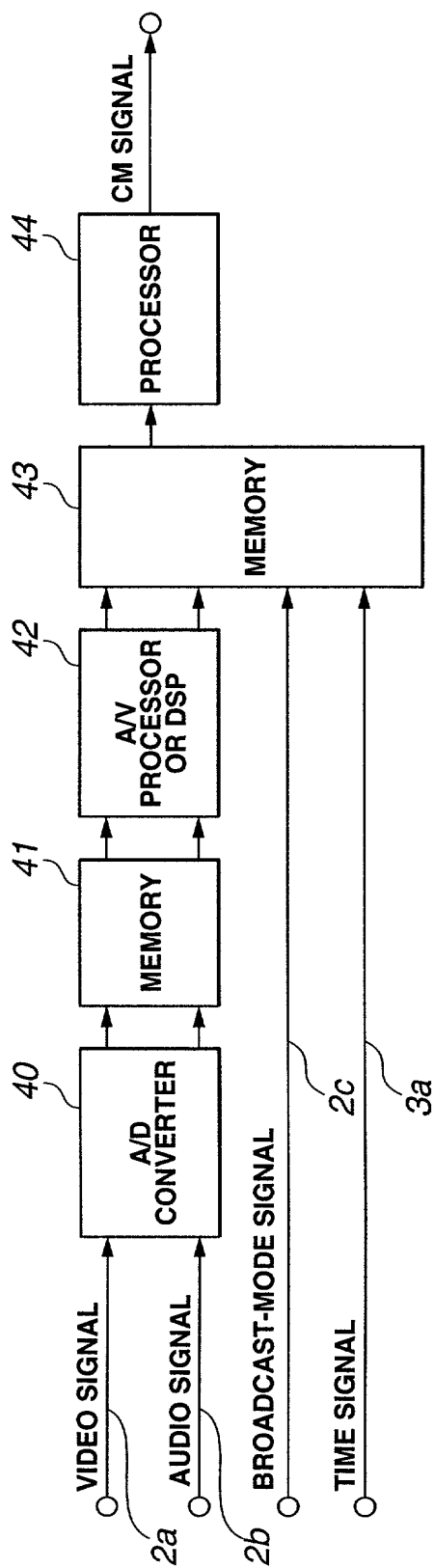


FIG. 25